CGP | MEP

14 Blackburn Road

Ventilation and Extraction Statement

FS-CGP-XX-XX-RP-M-1002

March 2025

DOCUMENT DETAILS

PROJECT NAME	DOCUMENT NUMBER	DOCUMENT TITLE	DATE CREATED
14 Blackburn Road	FS-CGP-XX-XX-RP-M-1002	Ventilation and Extraction Statement	March 2025 Author Josh Stanton

STATUS: PLANNING

CHANGE HISTORY

REVISION No.	REVISION DATE	DOCUMENT UPDATE DETAILS	REVISED BY	
P01 **P02**	14.03.2025 02.04.2025	Issue for Comment Comments Incorporated	Amaan Hussain	
			Checked Harry John	Approved Michael Callaghan

DISTRIBUTION LIST

NAME	ORGANISATION
Tobias Corry	HTA
Maribel Mantecon	HTA
James McDonnell	Fifth State
Alex Springer	Fifth State
Austin Thomas	JAW Sustainability
Rishabh Patel	JAW Sustainability

DOCUMENT CONTENT

SECTION A – INTRODUCTION

A.1 Project Overview and Site Description

This report is prepared on behalf of Hampstead Asset Management Ltd ('the Applicant') and their delivery partner Fifth State, who will be delivering the regeneration sought by the London Borough of Camden and proposed in the application. CGP|MEP Ltd have been commissioned by Hampstead Asset Management Ltd ('the applicant') and their delivery partner Fifth State Ltd to produce a Ventilation and Extraction Statement to support the full planning application for the development on 14 Blackburn Road, London, NW6 1RZ.

The proposed redevelopment of 14 Blackburn Road, London, involves the transformation of 0.24-hectare site into a mixed-use development. This project consists of two interconnected buildings made up of a 10 storey Purpose Built Student Accommodation (PBSA) with 192 rooms and a 4-7 storey affordable residential building with 35 homes. Additionally, 1,619 sqm of flexible commercial and business space will be provided, including retail, showrooms, offices, and a café. The development is car-free, with cycle parking and on-site servicing facilities with communal and amenity spaces, including roof terraces and internal shared areas. The C3 building will be 4-7 storeys including a taller ground floor and the PBSA building will be 10 storeys including a ground floor and amenity mezzanine level. There is a double height spaces spanning these lower two floors in the café at the base of the PBSA.

Figure 1 – Proposed Blackburn Road development

A.1.2 Purpose of this Report

This Ventilation and Extraction Statement has been prepared for approval by the Local Planning Authority. This report outlines the ventilation systems and constraints that should be considered for the development, including mitigation of the impacts of air quality and noise.

This residential, PBSA & Commercial development has been designed to provide a healthy and comfortable indoor environment for its residents. Adequate ventilation and extraction systems will be installed to ensure good indoor air quality and to reduce the risk of moisture damage and condensation throughout all of the development

The building will feature a mechanical ventilation with heat recovery system (MVHR) in each apartment. This system aims to balance providing fresh air ventilation without bringing in hot air in summer and cold air in winter. It benefits from an efficient heat exchanger; whereby incoming supply air is pre heated/cooled by the outgoing extracted air. Supply diffusers and extract grilles are appropriately located so to ensure efficient air distribution while considering the removal of foul smells and moisture from kitchens and bathrooms. The ventilation and extraction systems will be designed to be low-noise, and to meet the requirements of the latest building regulations. Regular maintenance will be carried out to ensure the systems continue to operate effectively and efficiently.

SECTION B – VENTILATION SYSTEMS

B.1 Residential and Student Ventilation Systems

B.1.1 Residential Apartment Ventilation

Residential apartments will be served via vertical MVHR units located within the utility cupboards. These units will provide mechanical supply and extract ventilation with heat recovery to spaces within each apartment. Intake and Exhaust louvres will be suitably located above windows at high level on the façade so to prevent recirculation.

In order to meet Part O requirements, it is possible that some units may require MVHR coolth units. The exact number of units, if any, will be determined at the detailed design stage. These units will provide mechanical supply and extract ventilation with heat recovery to spaces within each apartment with a boost function to provide a cooling affect. Intake and Exhaust louvres will be suitably located above windows at high level on the façade so to prevent recirculation.

Openable windows will provide purge ventilation.

B.1.2 PBSA Studio Ventilation

Studios will be provided with supply and extract ventilation via a high-performance heat recovery unit that will be located above the entrance to the bedrooms. Fresh air and exhaust air will be taken from the façade located at high level above the window. Fresh air will be distributed at high level via supply ductwork, with extract air being drawn from the space and removed via extract ductwork.

Openable windows will provide purge ventilation.

B.1.3 Amenity Space Ventilation

Ventilation within the amenity spaces will be provided by ceiling void located MVHR's. Intake and exhaust ductwork will connect to façade at high level through weatherproof louvres. Supply and extract diffusers will evenly distribute air around the space, providing a fresh and pleasantly ventilated space. VRF fan coil units located at high level will provide heating and cooling.

B.1.4 Odour Abatement and Air Quality Techniques

The following odour abatement techniques will be implemented:

1. **Regular Maintenance**

   Proper maintenance of MVHR units is crucial for preventing odours. Filters should be cleaned or replaced regularly, and the unit should be inspected for any signs of mould or other contaminants. If mould or other contaminants are found, they should be removed promptly

2. **Use of Appropriate Filters**

   Some MVHR units may require specific filters designed to target specific odours. Consult the manufacturer's instructions for the appropriate filter to use

3. Proper Installation

The MVHR unit should be installed by a qualified professional according to the manufacturer's instructions. This can help prevent odours caused by improper installation, such as leaks or inadequate ventilation

B.2 Building Ventilation Systems

B.2.1 Substation Ventilation

A new ground floor UKPN transformer will be provided for the development and will need to be ventilated as per UKPN standard requirements. Air intake will be via fully louvred doors. A high-level louvre will be provided adjacent to the entrance gate on the external façade that will provide cross ventilation over the transformer.

B.2.2 Generator Ventilation

A diesel-powered standby generator will be provided to serve the life safety systems. The generator will require air intake and hot air discharge connections to atmosphere for combustion and cooling via fully louvered panels from the south façade at high level. The generator flue will discharge the products of combustion. This flue termination will be suitably located away from air intakes to mitigate cross contamination of air streams.

B.2.3 Smoke Ventilation

Smoke clearance from the communal corridors is addressed by Automatic Opening Ventilation shafts (AOV's) that open automatically in the event of a fire and provide a means of smoke extraction to roof level. Details of the smoke ventilation design will be detailed by a specialist at the next design stage.

B.2.4 Lower Ground Floor Ventilation

The lower ground floor BOH area will be mechanically ventilated via supply and extract fan.

B.2.4 Commercial Unit Ventilation

The commercial units are expected to be ventilated via mounted MVHR's. These services will be exposed. Intake and exhaust air will be ducted to louvres in the façade, with supply and extract grilles evenly distributing air within the space. Heating and cooling are likely to be provided via VRF or split AC systems dependant on the tenant's requirements.

C G P | M E P

MYO St Paul's
One New Change
London
EC4M 9AF

t. 020 3950 4663

Royal House
28 Sovereign Street
Leeds
LS1 4BA

t. 0113 255 2046

cgpmep.com
info: workshop@cgpmep.com